

FIG. 1

FIG. 2 is a schematic diagram of a 16-input, 16-output switch fabric. The fabric is composed of a 4x4 array of 16 2x2 switches. The inputs are labeled In #0 through In #7, and the outputs are labeled Out #0 through Out #5. The fabric is controlled by a 4-bit input, In #0 through In #3, which selects the output for each input. The fabric is also controlled by a 4-bit output, Out #0 through Out #3, which selects the input for each output. The fabric is a crossbar switch fabric.

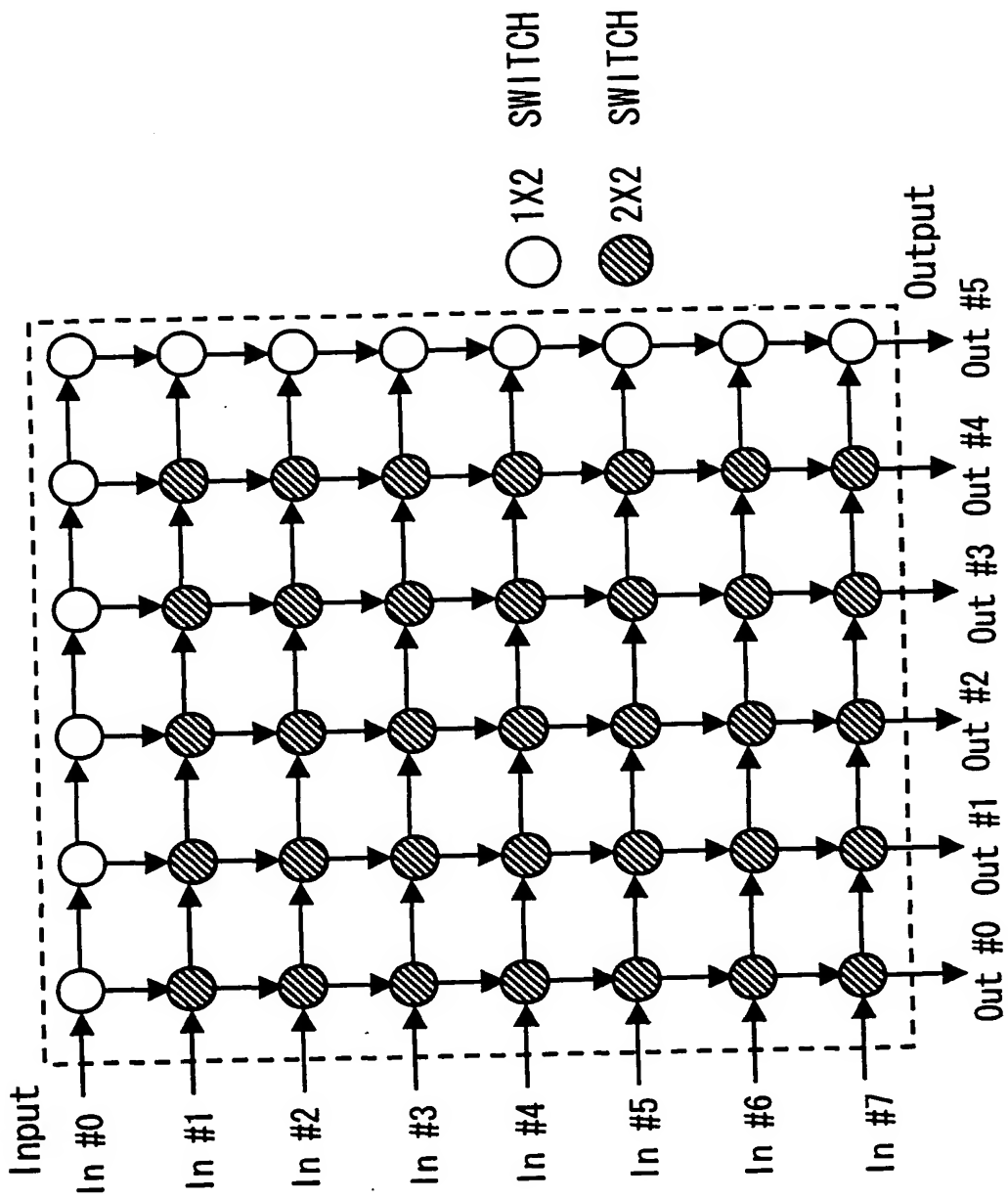


FIG. 2

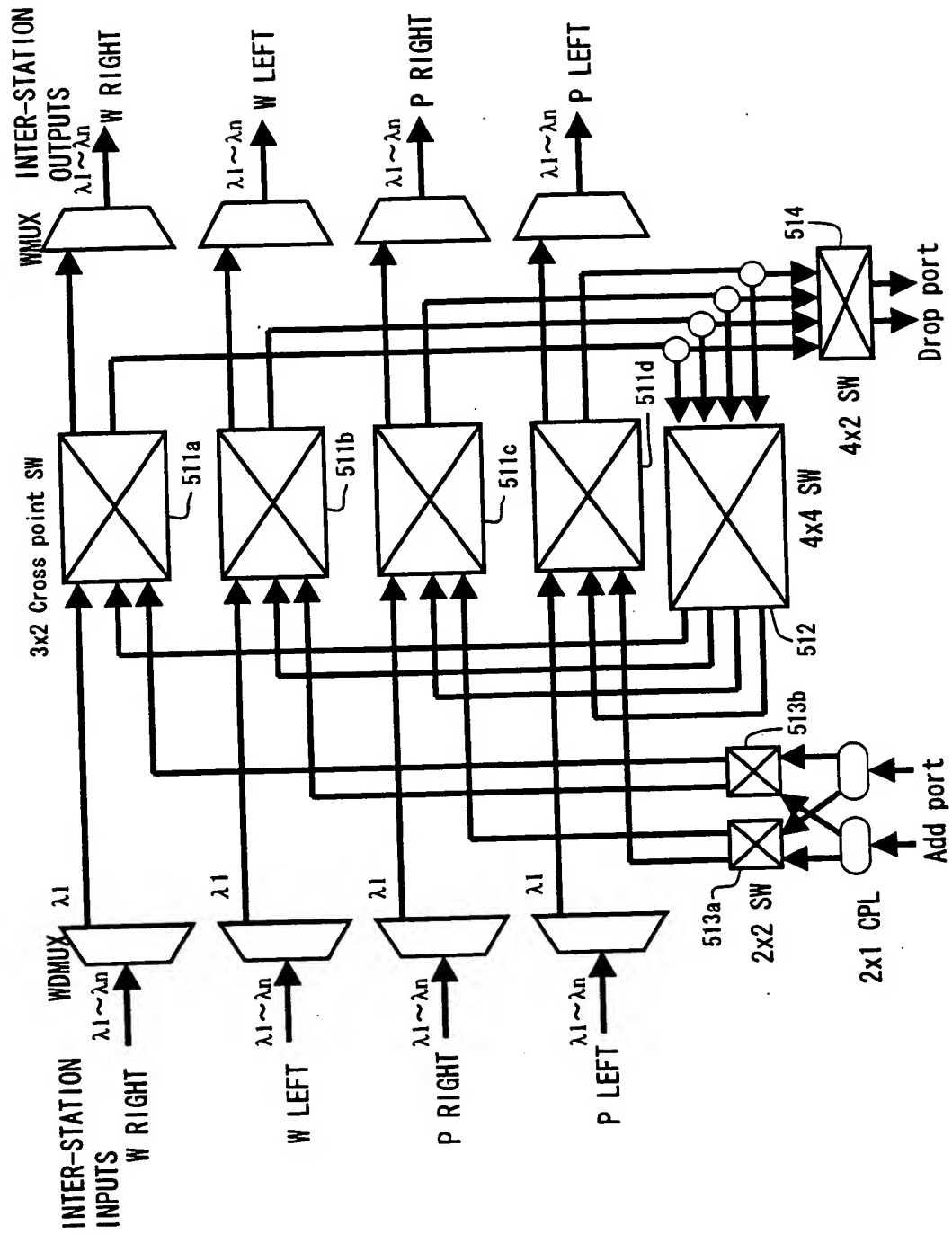


FIG. 3

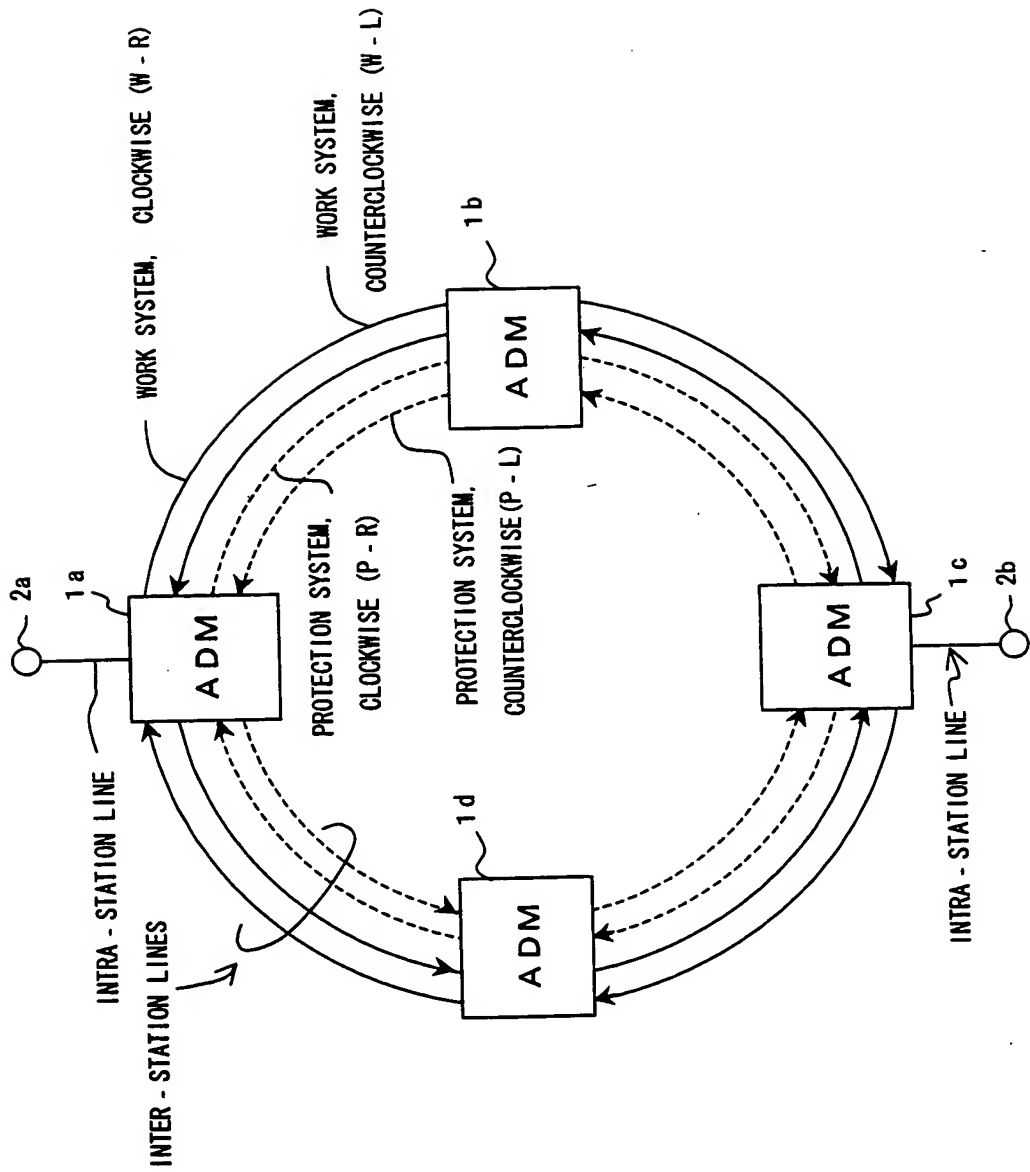


FIG. 4

Diagram illustrating a multi-stage switching system, likely a multi-stage switch or a multi-stage router, showing the internal structure and signal flow.

The system consists of multiple stages of switching circuits, labeled $\lambda 1, \lambda 2, \dots, \lambda n$. Each stage contains a **MAIN SWITCH** and an **ADD PORTION** (labeled 12) and a **DROP PORTION** (labeled 13).

The input side (left) shows four ports: **W RIGHT**, **W LEFT**, **P RIGHT**, and **P LEFT (INPUT SIDE)**. The output side (right) shows four ports: **W RIGHT**, **W LEFT**, **P RIGHT**, and **P LEFT (OUTPUT SIDE)**.

The system is connected to an **INTRA-STATION LINE (DROP LINE)** and an **INTRA-STATION LINE (ADD LINE)**.

The diagram is labeled with $10(10-n)$ and $10(10-1)$, indicating the number of stages or ports.

FIG 5



FIG. 6



எ
ஞ்
ஈ
உ

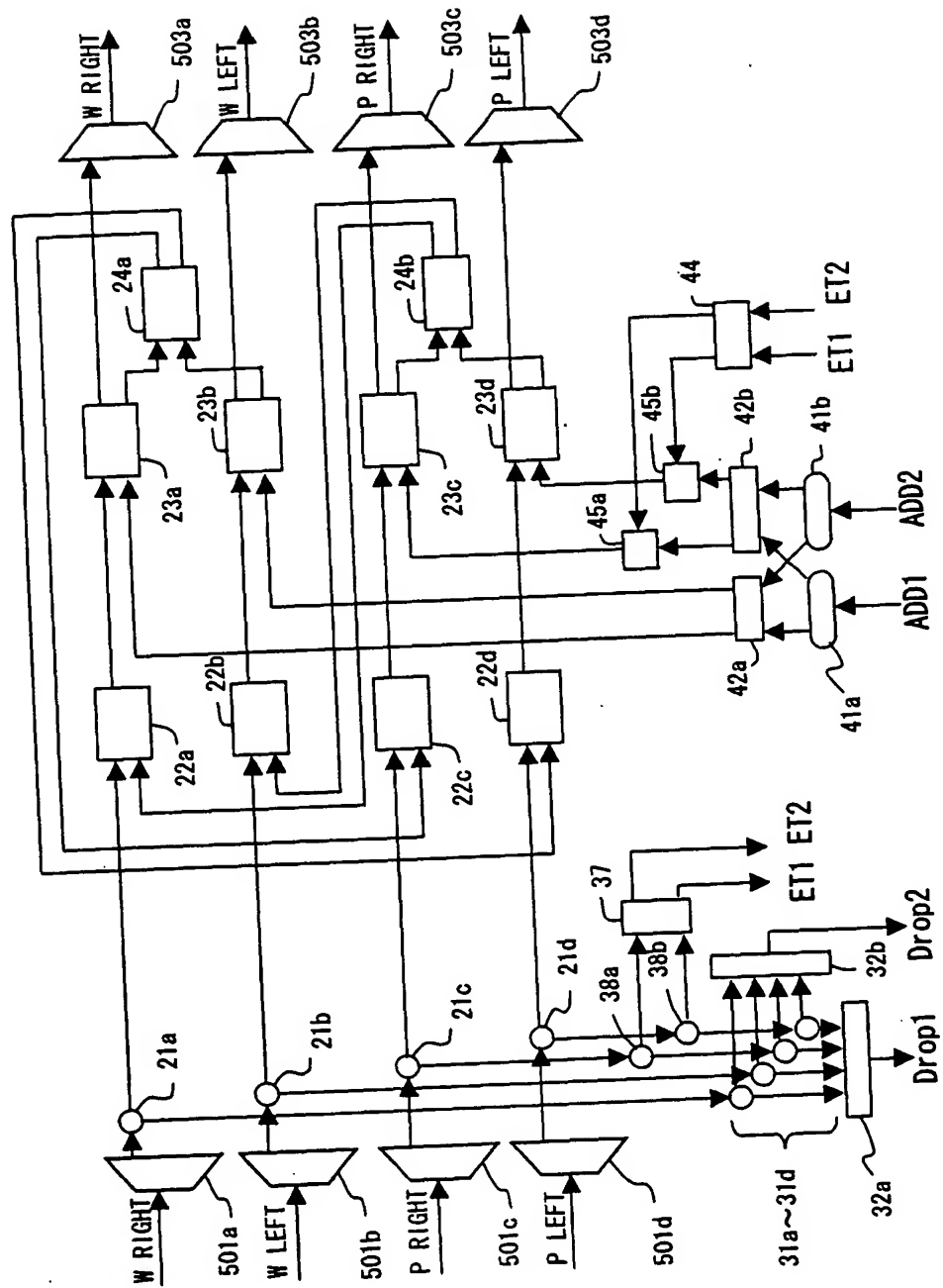


FIG. 10

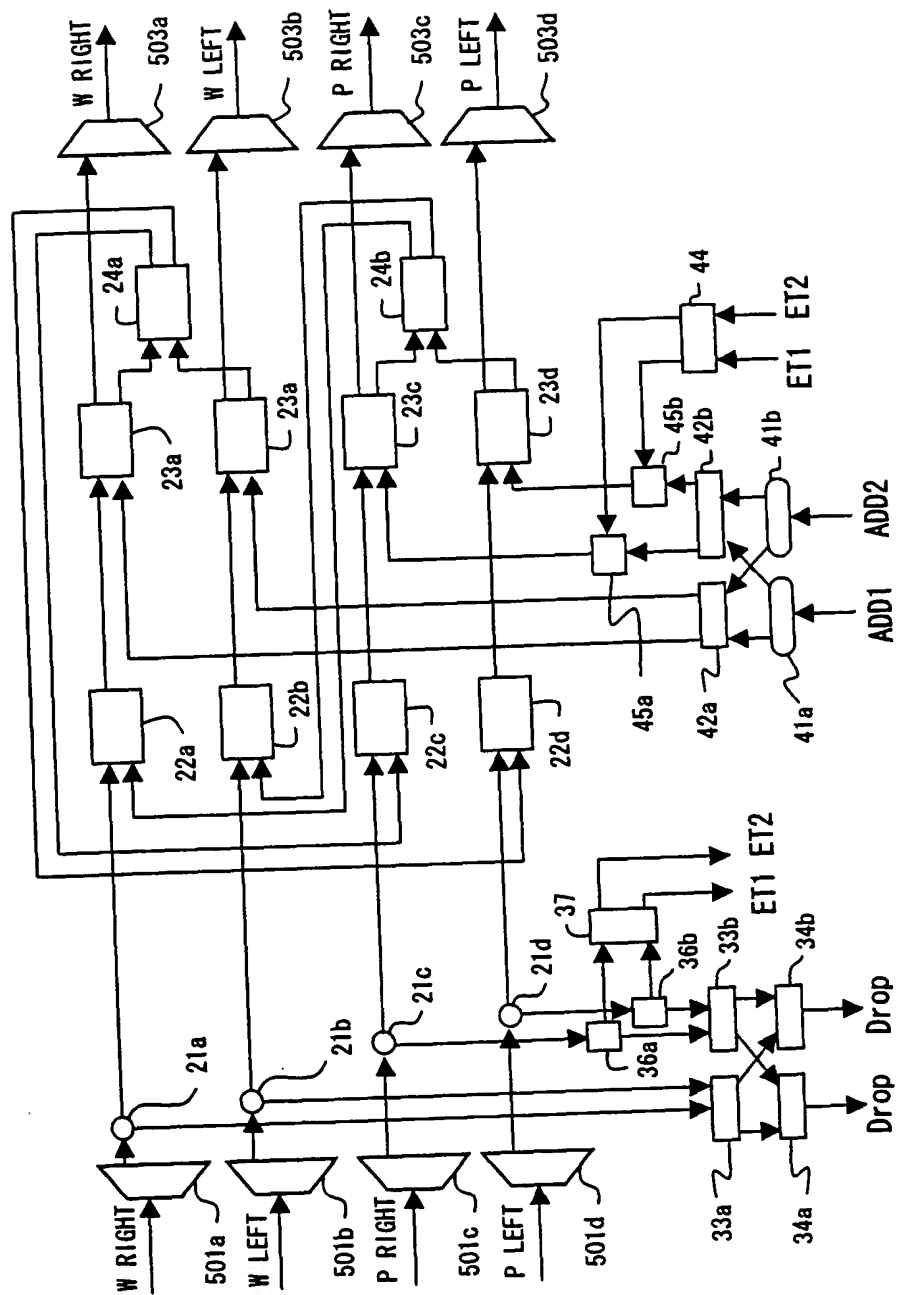


FIG. 11



FIG. 15

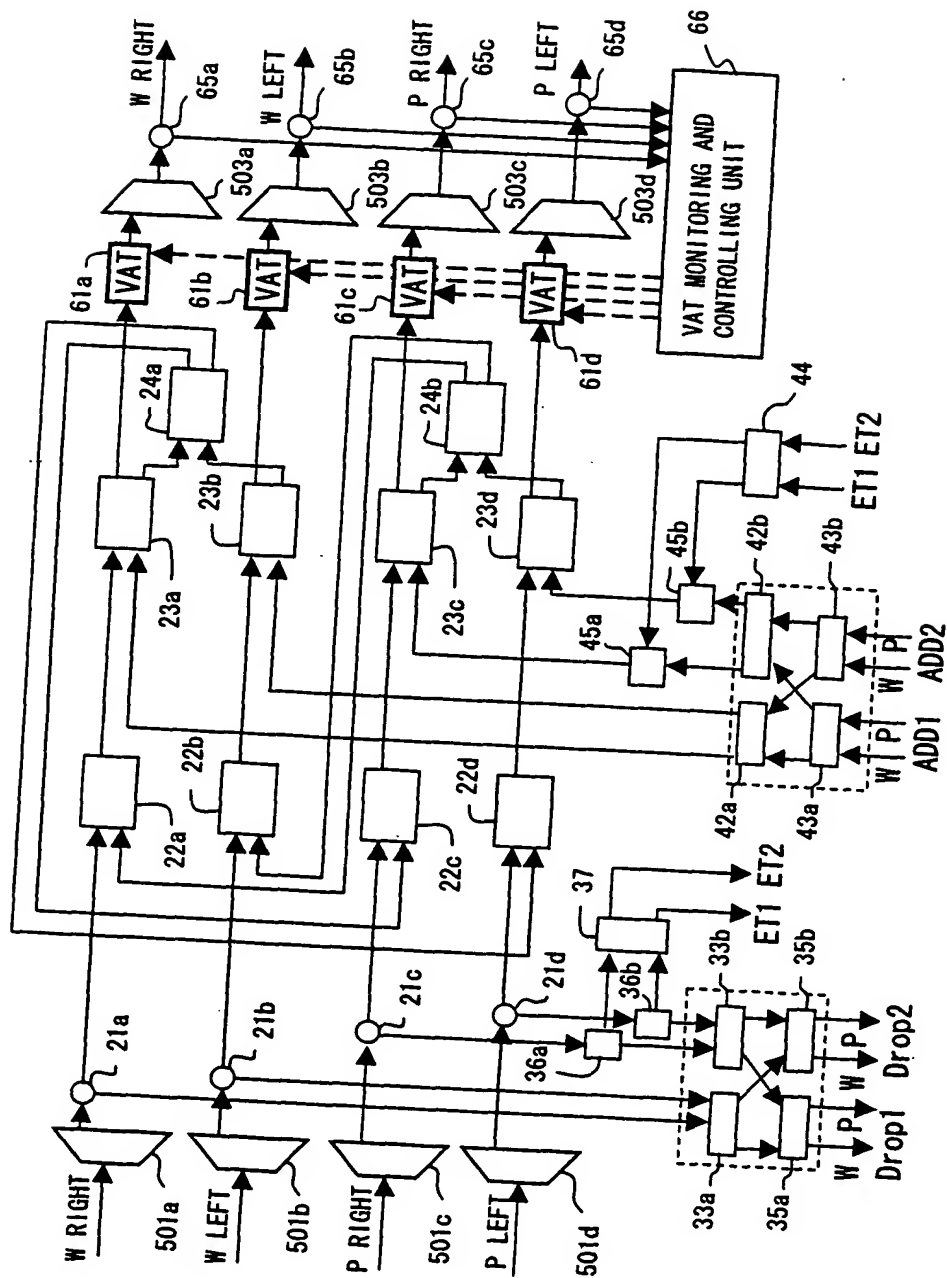
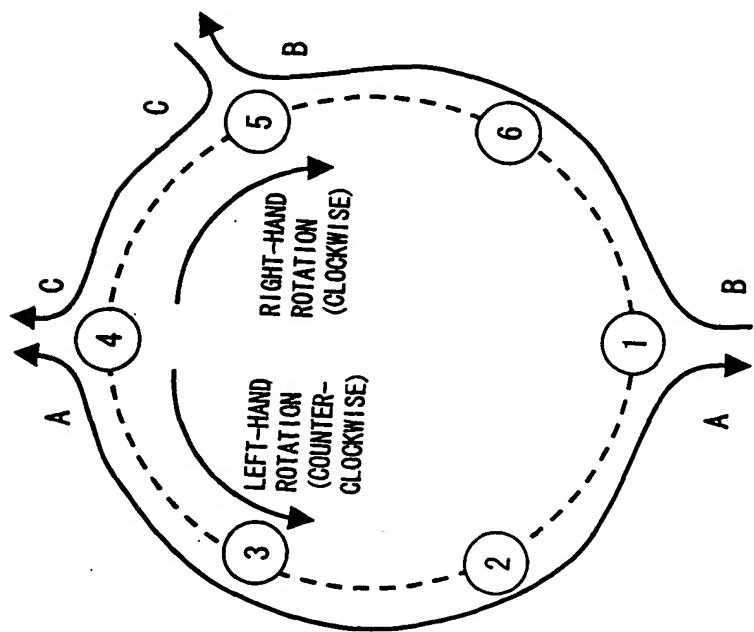
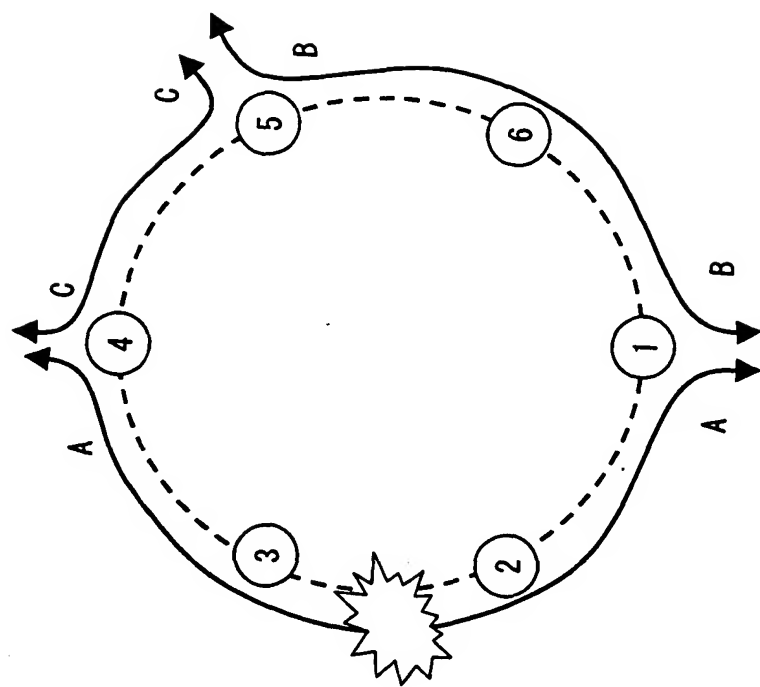


FIG. 18



INITIAL STATE

FIG. 20A



UPON OCCURRENCE OF FAULT
ON PATH A (FULLY DISCONNECTED
BETWEEN NODES 2 AND 3)

FIG. 20B

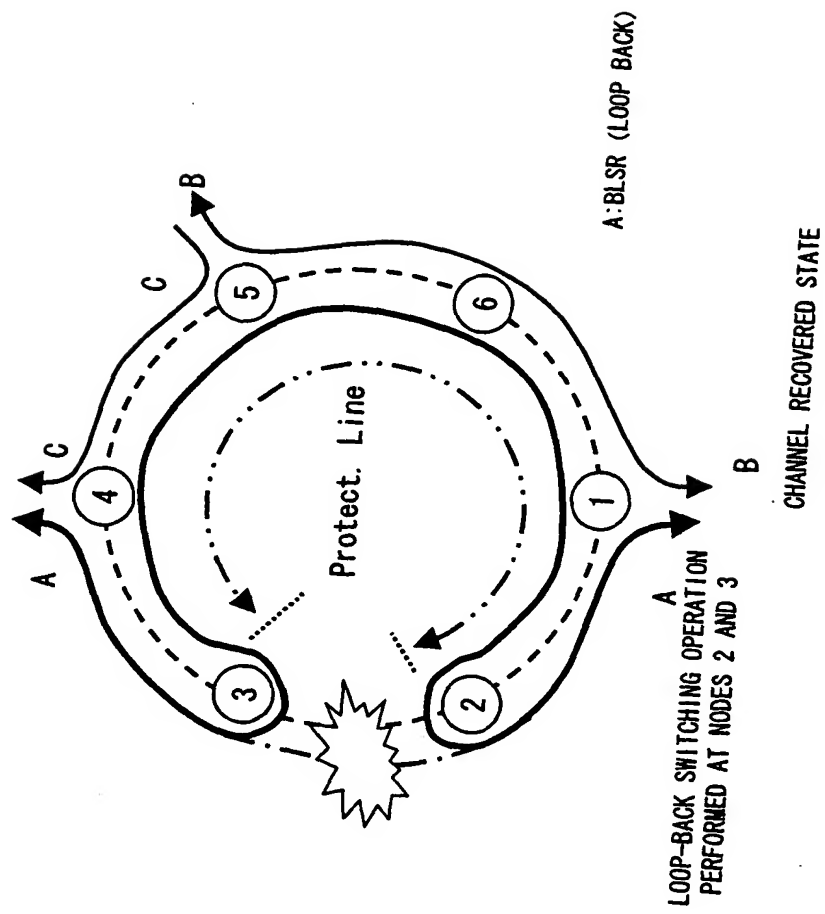
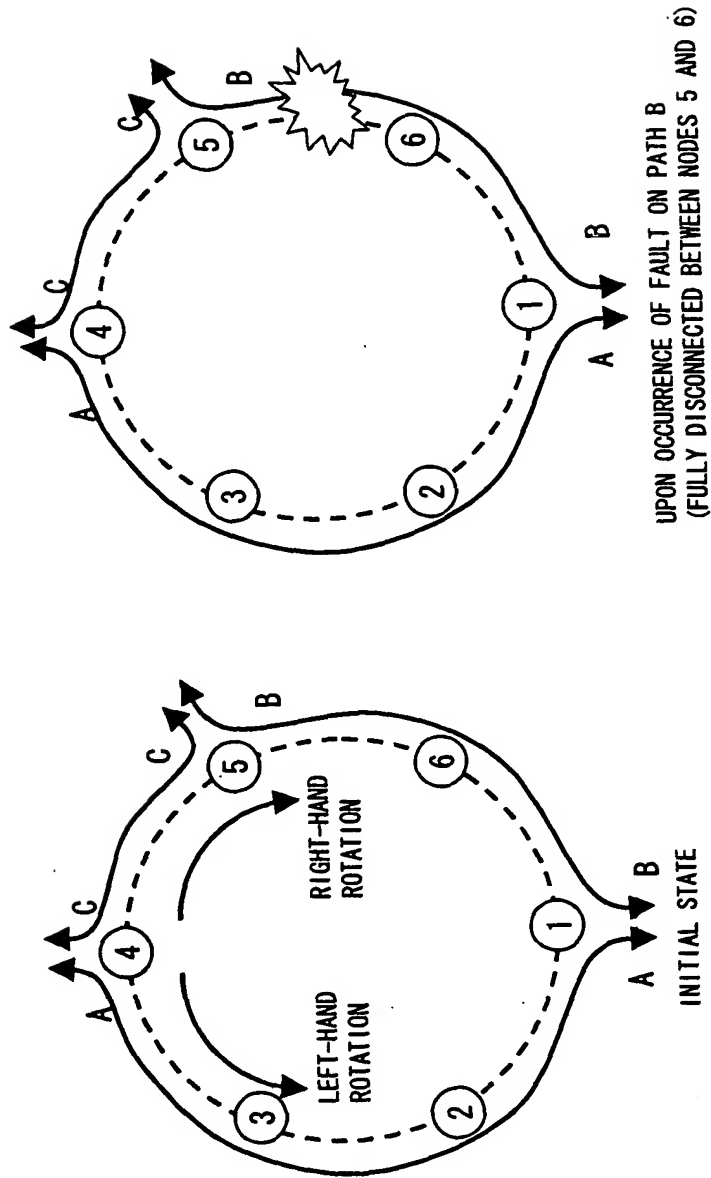


FIG. 21



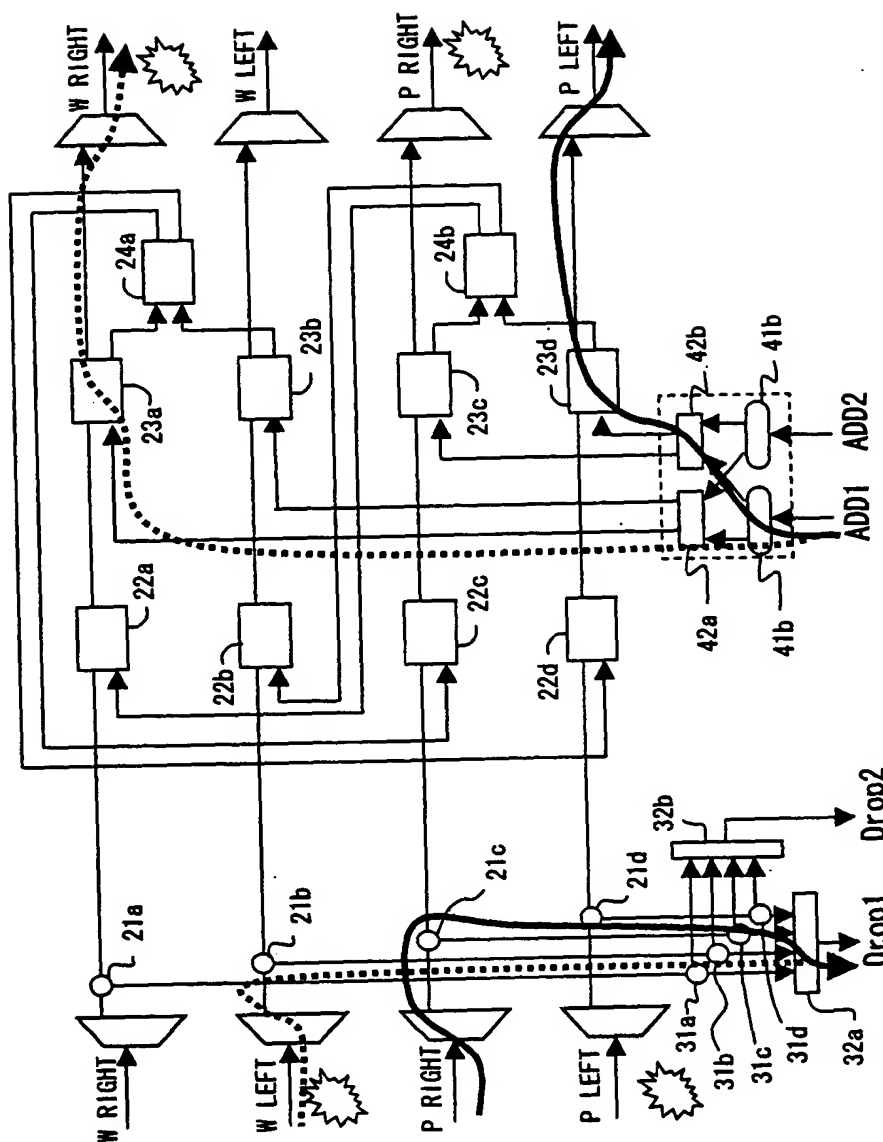


FIG. 25

1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800 2900 3000 3100 3200 3300 3400 3500 3600 3700 3800 3900 4000 4100 4200 4300 4400 4500 4600 4700 4800 4900 5000 5100 5200 5300 5400 5500 5600 5700 5800 5900 6000 6100 6200 6300 6400 6500 6600 6700 6800 6900 7000 7100 7200 7300 7400 7500 7600 7700 7800 7900 8000 8100 8200 8300 8400 8500 8600 8700 8800 8900 9000 9100 9200 9300 9400 9500 9600 9700 9800 9900 10000

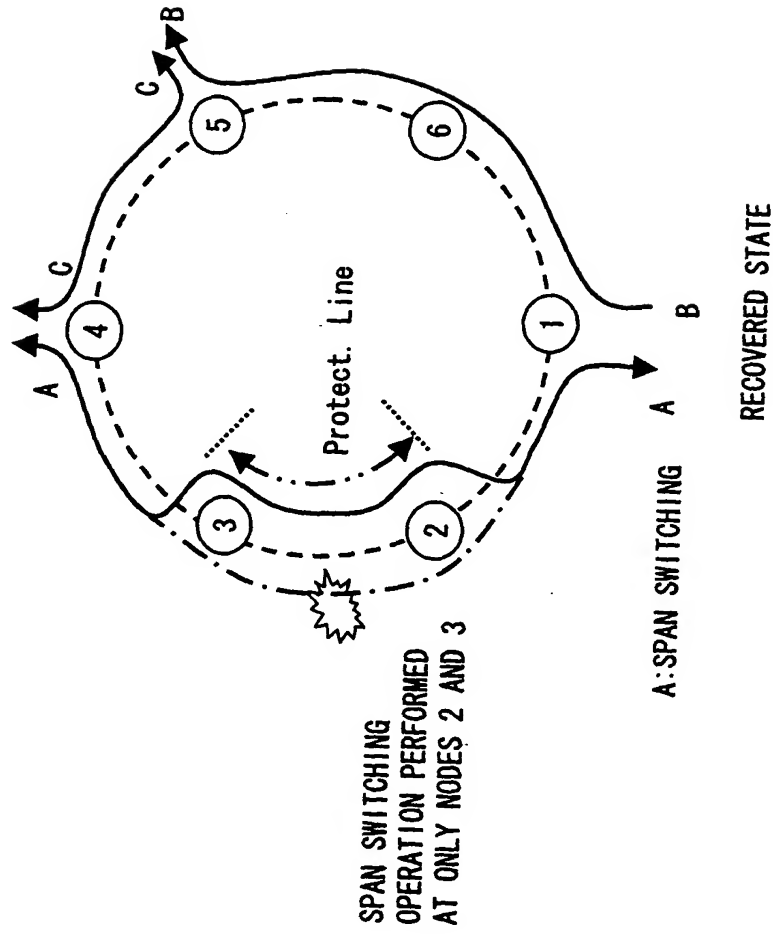


FIG. 26

